
USMCA Tijuana River Watershed

Public Information Meeting

October 31, 2023
2:00 – 3:00 p.m. PT

Agenda

Objective:

- Share updates on topics including solicitation for ITP expansion and infrastructure projects in Mexico.

2:00 pm 5 mins	Welcome and Opening Remarks – Martha Guzman, U.S. EPA Regional Administrator and Dr. Maria-Elena Giner, USIBWC Commissioner
2:05 pm 10 mins	General Updates – Doug Liden, U.S. EPA Region 9 Water Division <ul style="list-style-type: none">- Status of projects in Mexico- Looking back on project milestones
2:15 pm 15 mins	ITP Updates – Dr. Maria-Elena Giner, USIBWC Commissioner <ul style="list-style-type: none">- Immediate repairs- Cost and solicitation for expansion
2:30 pm 10 mins	Air Quality Monitoring Updates – David Sodeman and Kevin Bradley, San Diego County Air Pollution Control District
2:40 pm 15 mins	Q & A
2:55 pm 5 mins	Closing Remarks – Bruno Pigott, U.S. EPA Principal Deputy Assistant Administrator for Water



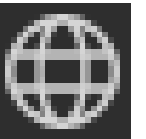
USMCA Tijuana River Watershed

Public Information Meeting

Zoom Meeting: October 31, 2023

Interpretation

Interpretación

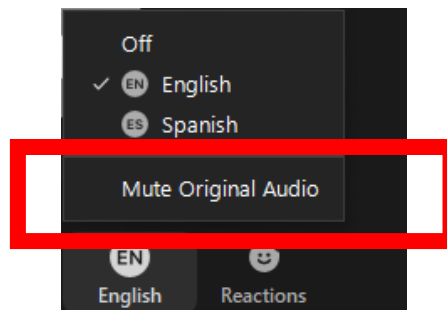
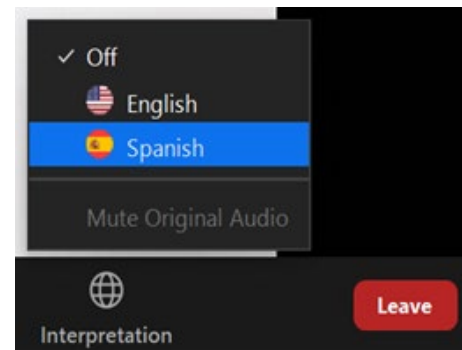


1. In your meeting controls (bottom bar), click Interpretation.

En los controles de la reunión (barra inferior), haga clic en “Interpretation” o Interpretación

2. Click “English”

Seleccione “Spanish” (español)



Mute Original Audio if you would not like to hear the (Spanish) original audio while it is being interpreted into English

Seleccione mute “Original Audio” para no escuchar de fondo el idioma original

Submitting a Question

1. At the bottom of your screen, click on the “Q&A” to type in your question.
2. If possible, please include the slide number.



Today's Agenda

- Welcome & Overview
- General updates with USEPA
 - Status of projects in MX
 - History of projects so far
- ITP Updates with USIBWC
 - Immediate repairs
 - Cost and solicitation for expansion
- Air Quality Monitoring updates with SDAPCD
- Q&A
- Closing Remarks

Welcome & Overview

Martha Guzman, EPA Regional Administrator

Dr. Maria-Elena Giner, USIBWC Commissioner

General Project Updates

Doug Liden, U.S. EPA Region 9 Water Division

US & Mexico Signed Agreements Summer 2022



Nation	Commitment
U.S.	\$330 M
Mexico	\$144 M
Total	\$474 M

Statement of Intent

- Framework to implement a comprehensive suite of projects.
- Identifies projects, resources and timelines.
- Includes commitment to invest in short- and long-term projects on both sides of border.

Minute 328 – Treaty Annex

- First step in binational implementation of the Statement of Intent framework
- Includes cost-share on O&M of South Bay International Wastewater Treatment Plant

Mexico Contributions

Within the first year of signing the Minute 328 treaty annex, Mexico has secured \$45 M of their 5-year \$144 M commitment.

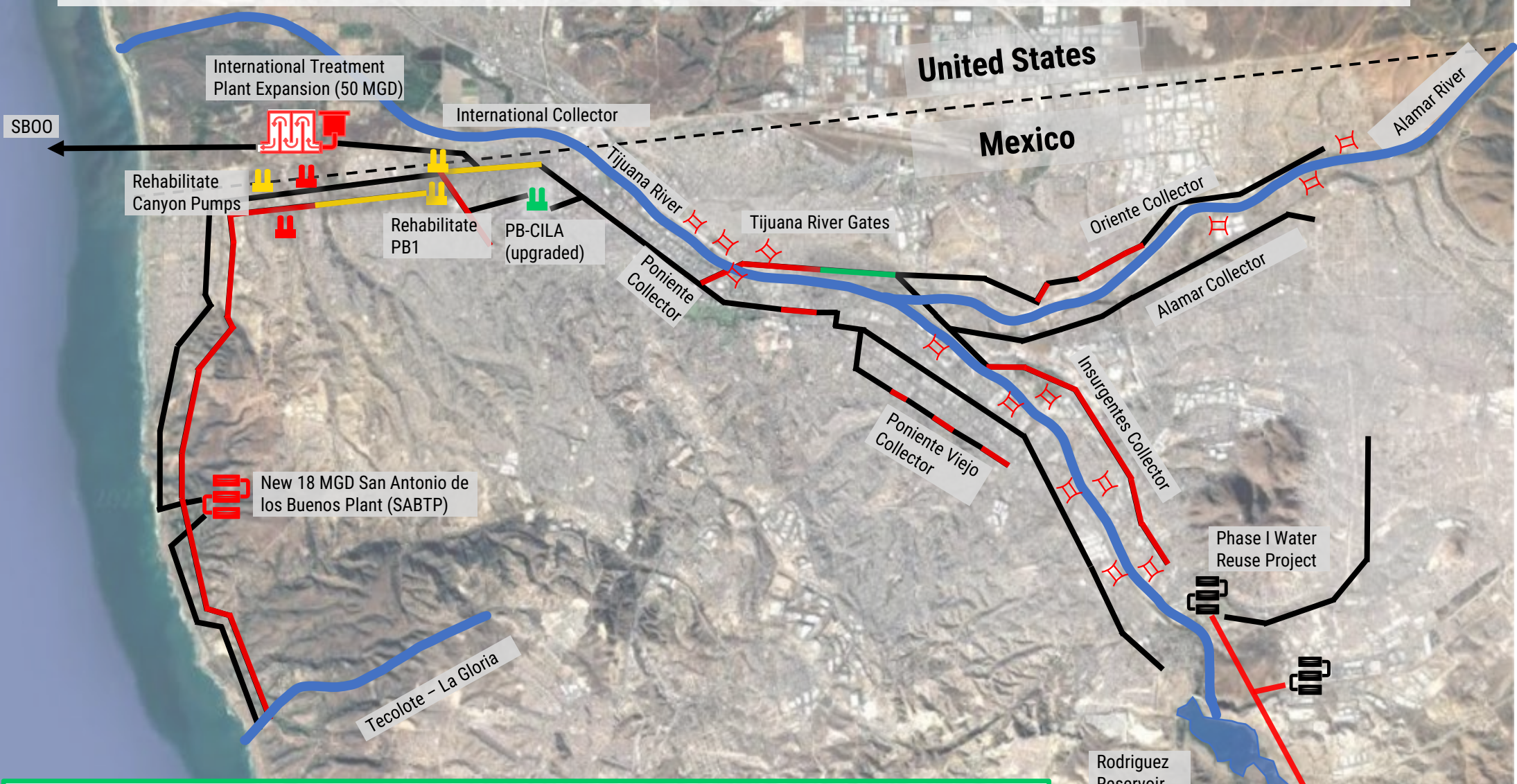
- Projects in Mexico will continue to reduce wastewater flows
 - ✓ Replacement of the 42-inch wastewater line to San Antonio de Los Buenos (SAB) plant by November 2023
 - ✓ Construction contract bid for new SAB plant in late 2023
 - ✓ Construction started on the International Collector to prevent wastewater spills of up to 58 MGD
 - ✓ Construction contract for PB1 to go out for bid in early 2024
 - ✓ Construction contract for Laureles I is under procurement

Pipe to be installed in Matadero Canyon



International Collector construction 20% completed

Current Progress – Oct 2023




Infrastructure in green construction is complete

Infrastructure in yellow is in procurement/under construction.

Infrastructure in red is part of the scope for rehabilitation, replacement, etc. under Min 328 and SOI

History of implementation and cost estimates

- 
- 2020** - Congress appropriated \$300 million, before feasibility study
 - 2021** - Feasibility study and EPECG/Public process defines suite of projects
 - Preliminary estimates for SBIWTP expansion (Class V): **\$300 million**
 - 2022** - Contract issued for SBIWTP Facility Assessment and more detailed cost estimate
 - May**
 - 2023** - Updated cost estimate completed after the FY24 President's Budget was released (Class IV): **\$600 million** without anaerobic digesters
 - October**
 - 2023** - Pre-solicitation Notice for design/construction

ITP Updates

Dr. Maria-Elena Giner, PE
USIBWC Commissioner

SBIWTP- Current Challenges



- Rupture July 2022
- Loss of 25 MGD wastewater system capacity
- Flows diverted to the SBIWTP as excess flows
- Flows diverted to the Tijuana River as transboundary flows

SBIWTP- Current Challenges



Excess Flows

- Clogging of bar screens with trash & sediment
- Excessive wear and tear of influent pumps – 3/6 pumps operational
- Overloaded grit chambers
- Overloaded primary sedimentation tanks – no solids removal
- Solids carryover into the secondary treatment
- Permit exceedances in volume & effluent quality

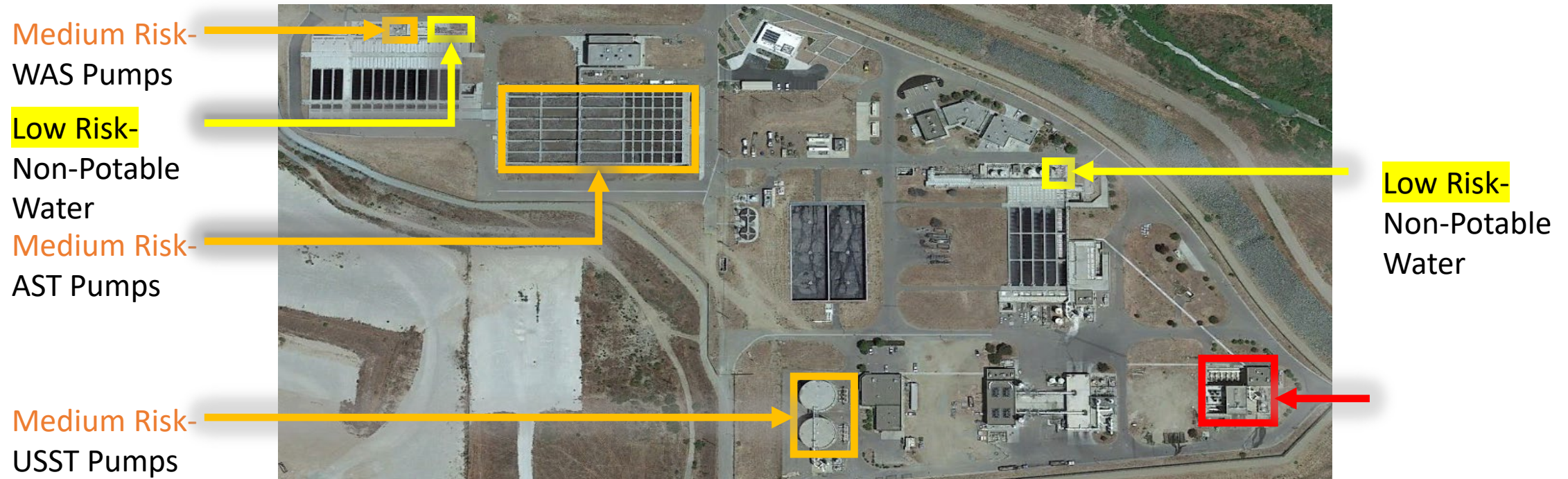
Steps Forward for SBIWTP Compliance

- **Outcome:** Achieve a permit compliant SBIWTP within 9 to 12 months. Incremental improvements expected.
- IBWC has **awarded \$10M in FY 2023** in capital improvements for:
 - ✓ Replacing **Junction Box 1** as a design build
 - ✓ Rehabilitation of all the **mechanical parts** for primary sedimentation tanks, which have long lead times
 - ✓ Cleaning out the **primary sedimentation tanks**
 - ✓ Replacement of **influent pumps #1 and # 5**
- Mexico is replacing the **42-inch wastewater line** to SAB
 - ✓ Estimated completion of **November 2023**
 - ✓ Will reduce dry weather **transboundary flows**
 - ✓ Will reduce **excess flows** to plant

Tropical Storm Hilary Impacts

- Exacerbated vulnerabilities primarily through excessive flows and influx of debris:
- Excessive Inflows
 - Exceeded the design flow capacity of the plant **by 100% for 6 hours** (25 vs 50+ MGD) and by **320% for 6 hours** (80 MGD) on Sunday August 20, 2023 to Monday, August 21, 2023
 - Filled the **equalization tanks** within the first hour of storm
 - Secondary treatment was **bypassed** at 5pm Sunday for 10 hours and flow discharged through outfall
 - **Flooding** of headworks- pump and electrical issues
- Trash, Sediment, and Debris impacted the entire plant
 - Excess build-up in **wet wells, tanks, and basins**
 - Carried by **flow into pumps** (influent, WAS, USST, non-potable water)
 - **Entanglement of trash** in impellers and check valves – pump failures

Tropical Storm Hilary Impacts Evaluation and Recovery

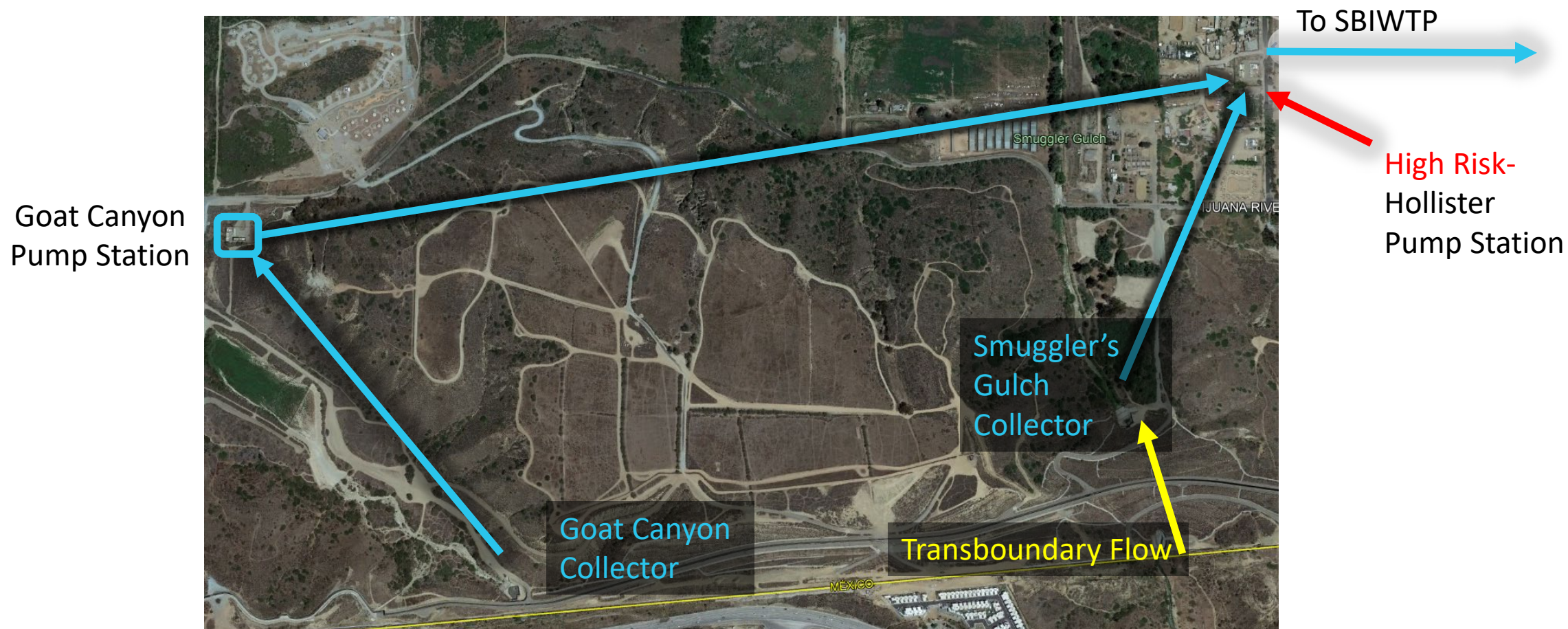


High Risk- Failure leads to SBIWTP shutdown and 100% untreated sewage flow in Tijuana River

Medium Risk- Failure leads to partial treatment of sewage discharged through ocean outfall

Low Risk- Impacts operations and may lead to partial treatment of sewage discharged through ocean outfall

Tropical Storm Hilary Impacts Evaluation and Recovery- Canyon Collectors & Pump Stations



Hilary Recovery Plan

Recovery: \$8.0 million has been redirected from IBWC's budget

- Repair will be done in parallel with WWTP compliance - 9 to 12 months
- Incremental improvements have started
- Recovery elements will include some redundancy
 1. Headworks – High Risk
 - Emergency pump and electrical repairs at headworks -Done
 - Replace influent pumps: Install 2 pumps previously ordered to arrive Oct 2023
 - Contractor working with vendors for 4 additional influent pumps
 2. Replace 11 inoperable pumps throughout the plant – Medium Risk
 - Most pumps have been ordered
 - Hollister pump station now operating
 3. Rehabilitate both unstabilized sludge storage tanks with pumps, valves and piping – Medium Risk
 - Contractor working with vendors for materials

Next Steps

- It is estimated that this **project has exceeded** its USMCA funding availability by \$310 M +/- 30%
- Construction will be **phased**, based on availability of funds
- Finalizing **procurement** documents
- **Pre-solicitation** notice issued **October 20, 2023**
- **Solicit bids** in the fall of 2023 for design and construction
- **Construction schedule** to be developed during design phase
- Opportunities will be identified to **initiate operations incrementally** to allow for gradual and earlier increase of treatment capacity

Conclusion

Complying with our discharge permit is a priority

- Self-Reporting
- Realigned \$18M to address work required due excess flows from Pipeline 1A break in July 2022 and Tropical Storm Hilary in August 2023
- These improvements will achieve compliance of the plant independent of the bigger project
- **Incremental improvement will be seen after November at plant**

Activities with Mexico

- Binational meetings to identify solutions are held regularly at field office and HQ level
- USIBWC-CILA Rapid Response notification for local officials
- High-level communication was held with to Mexico to urge repair of pipeline PB1A to reduce excess flows. **Dry weather transboundary flows should decrease by November**
- Minute 328 regular meetings held to ensure advancement of projects

Conclusion

Communication with stakeholders

- Frequently brief legislative and executive branch of the federal government
- Three citizens forum meetings per year
- Periodic public meetings through USMCA process
- Twitter and email communication

Other Funded Infrastructure Activities

- Manpower Study
- Asset Management System
- Capital Plan

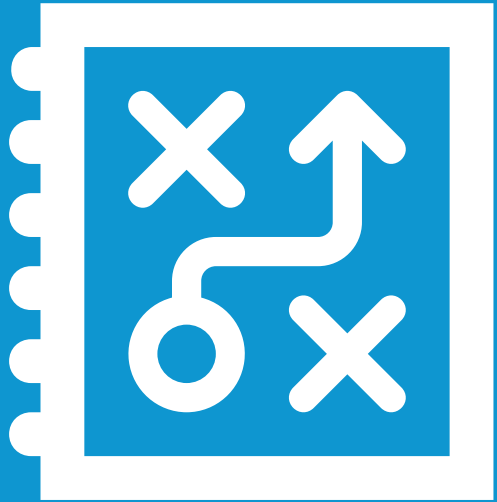
Air Quality Monitoring

David Sodeman & Kevin Bradley

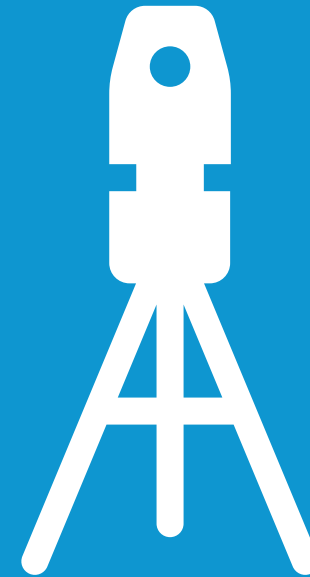
San Diego County Air Pollution Control District

Community Air Protection Program

Programa de Protección del Aire Comunitario



Community Emissions Reduction Program (CERP)
Programa Comunitario de Reducción de Emisiones



Community Air Monitoring Plan (CAMP)
Plan de Monitoreo del Aire Comunitario



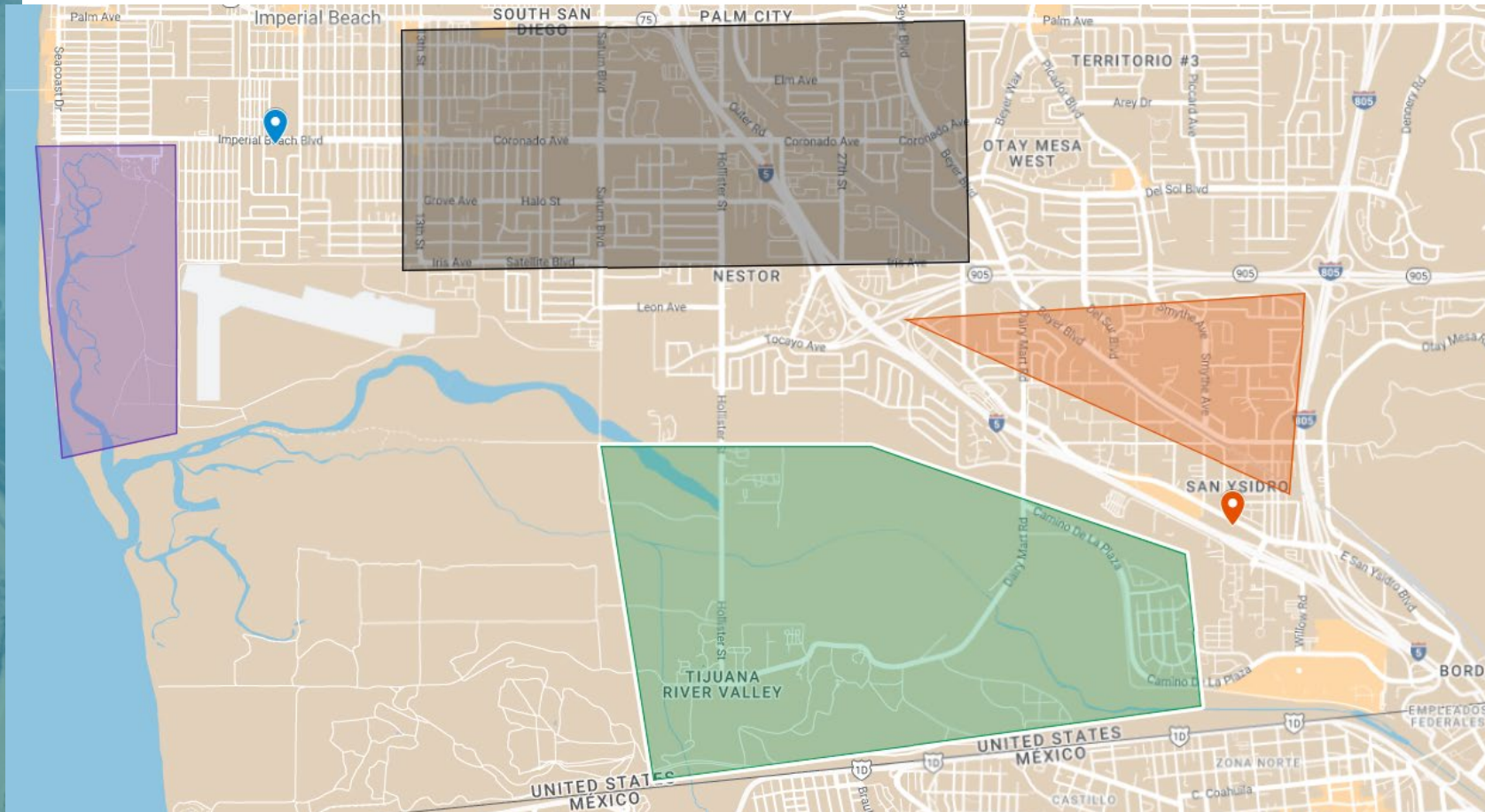
Monitoring Equipment – AQMesh

Equipo de Monitoreo - AQMesh

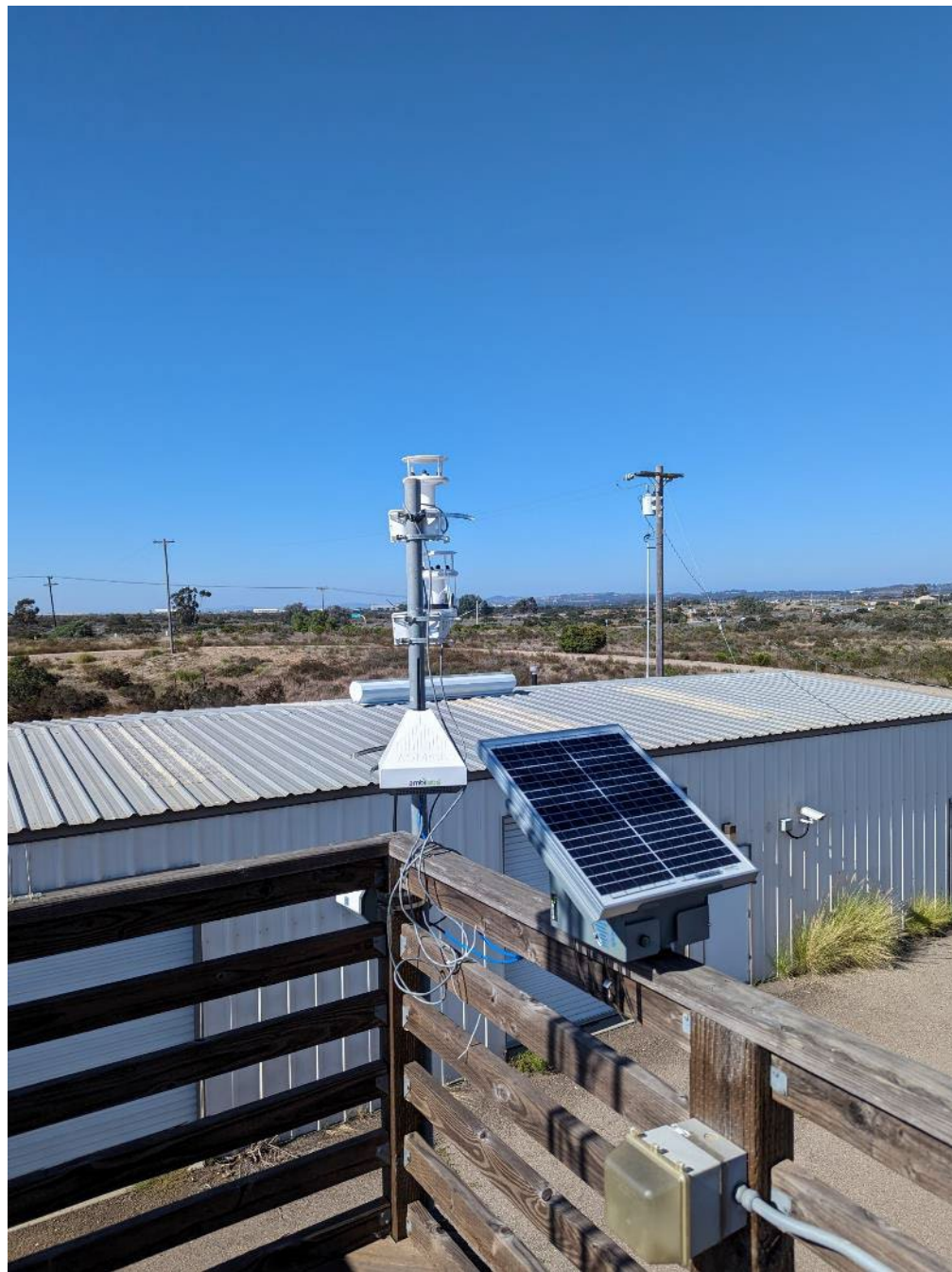
- Funded by a U.S. EPA Border 2025 Grant
 - Solar-powered
 - Data transmission via cellular network
 - Sensors for:
 - Hydrogen sulfide
 - Sulfur dioxide
 - Total volatile organic compounds
 - Carbon monoxide
 - Nitrogen dioxide
 - Wind speed and direction
 - Temperature, pressure, and humidity
 - Capable of measuring levels below hydrogen sulfide odor limit (10 ppb)
- Financiados por una subvención la EPA a través del Programa Frontera 2025
 - Utiliza energía solar
 - Transmite datos a través de red celular
 - Identifica niveles de:
 - Sulfuro de Hidrógeno
 - Dióxido de Azufre
 - Compuestos Orgánicos Volátiles Totales
 - Monóxido de Carbono
 - Dióxido de Nitrógeno
 - Dirección y velocidad del viento
 - Temperatura, presión y humedad atmosféricas
 - Capaz de medir niveles de sulfuro de hidrógeno por debajo del límite de olor (10ppb)

Monitoring Locations

Ubicaciones de Monitoreo



-  San Diego Fire Station 29
-  City Hall - Imperial Beach
-  Tijuana River Valley - Estuary
-  San Ysidro - Residential
-  Tijuana River Valley - East
-  South San Diego - Residential



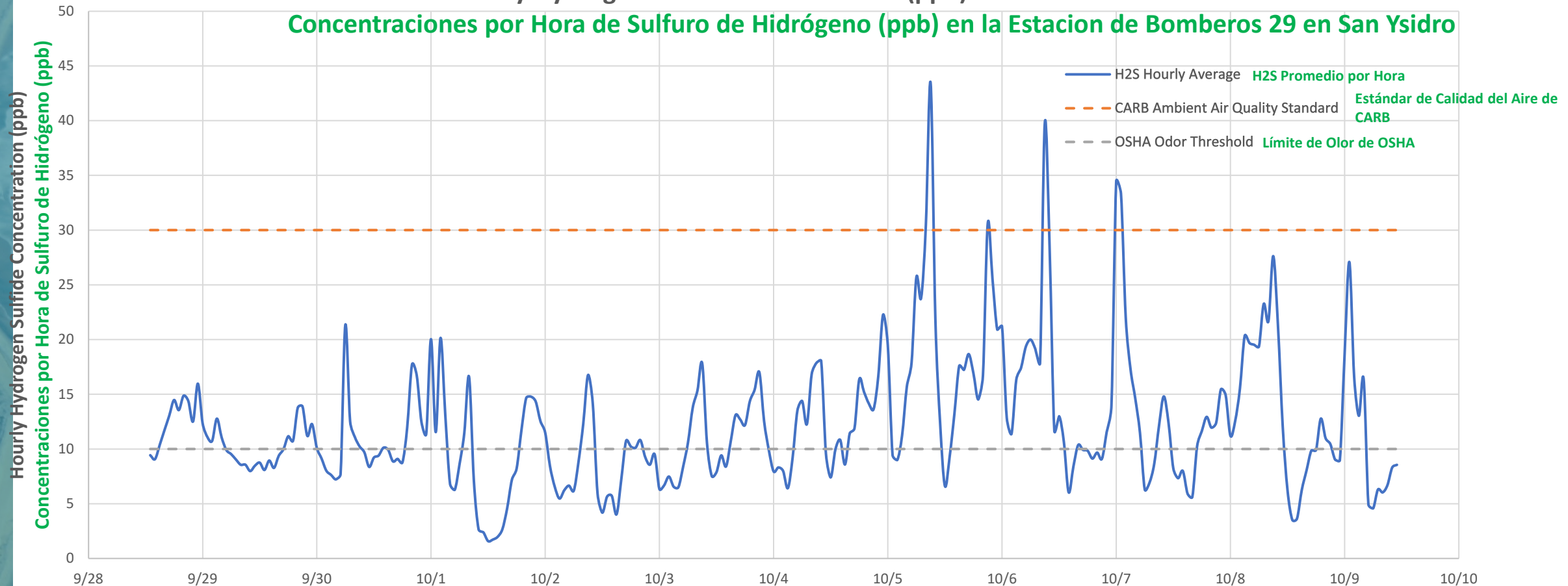


Monitoring Data – First Sensor

Datos de Monitoreo – Sensor primero

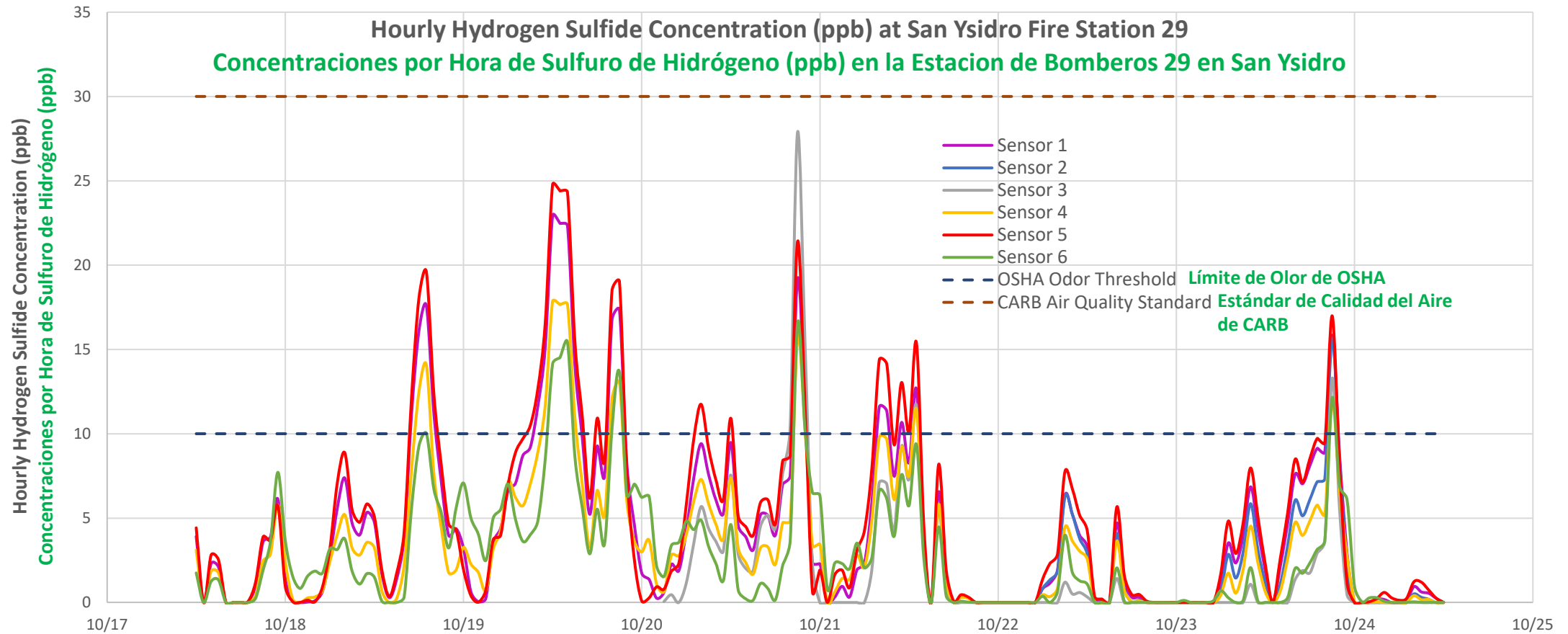
Hourly Hydrogen Sulfide Concentration (ppb) at San Ysidro Fire Station 29

Concentraciones por Hora de Sulfuro de Hidrógeno (ppb) en la Estacion de Bomberos 29 en San Ysidro



Monitoring Data – All Sensors

Datos de Monitoreo – Todos los Sensores



Next Steps

Próximos Pasos

- Data issues
 - Transmission and publication to sdapcd.org
 - Quality assurance and control
 - All six sensors collocated currently
 - Procuring reference grade analyzer for San Ysidro monitoring site
 - Other locations for sensors
 - Imperial Beach City Hall
 - Tijuana River Valley
 - More tbd
 - Collaboration on analysis and research
- Problemas de datos
 - Transmisión y publicación a sdapcd.org
 - Seguro y control de calidad
 - Todos de los seis sensors están colocados ahora
 - Comprar monitor “reference grade” por sitio monitoreo en San Ysidro
 - Otras ubicaciones por sensores
 - Ayuntamiento de Imperial Beach
 - Valle del Rio Tijuana
 - Y más
 - Colaboración en análisis y investigación

Contact Information

Información de Contacto

- Kevin Bradley
 - Senior Chemist – Community Air Monitoring Program
 - Kevin.Bradley@sdapcd.org
- David Sodeman
 - Chief – Monitoring and Technical Services
 - David.Sodeman@sdapcd.org
- Domingo Vigil
 - Deputy Director
 - Domingo.Vigil@sdapcd.org

Thank you! ¡Gracias!

Q & A

Contact us: TijuanaWater@epa.gov

Closing Remarks

Bruno Pigott, EPA Principal Deputy Assistant Administrator for Water